



October 6, 2019

Proposal 913.4653

Mr. Mike Maloney, P.E.  
MSA Professional Services, Inc.  
1702 Pankratz Street  
Madison, Wisconsin 53704

Subject: **Proposal for Geotechnical Exploration and Report  
Commerce Park  
Cottage Grove, Wisconsin**

Dear Mr. Maloney:

We are providing this proposal in response to your request of September 18, 2019. The field work will consist of drilling and sampling a total of eighteen soil borings. We are including charges based on extending the soil borings to a maximum depth of 20 feet each. The final depth of the soil borings depends upon the soil types, depth and type of fill materials, and soil strengths encountered.

During the drilling and sampling, we will also determine if groundwater is present and at what elevation it is within the depth range of the soil borings performed. Based on the soil boring information obtained, we will prepare a geotechnical report with our recommendations related to the foundation support for single or two-story slab-on-grade structures.

We propose to mobilize one of our low pressure rubber tire, all-wheel drive drilling rigs to perform the soil borings. Some ground surface damage may occur from the drilling rig, the repair of which is not part of our scope of services.

Our scope does not include site access delays or costs related to moving snow, cutting trees, cutting or repair of fencing, repair of landscaped areas, nor for payments for ground surface damage due to our drilling equipment. Our scope of work is for geotechnical purposes only and does not include environmental sampling or testing. We assume we are allowed to perform the soil borings during normal business hours and that no night, weekend, or holiday field work is required.

In addition to the soil borings, this proposal includes charges for us to classify the soil samples in our laboratory; prepare computer-generated Soil Boring Records; perform

laboratory testing on selected soil samples; and perform geotechnical engineering analyses and prepare a written report for the project site. The written report will include a discussion of the soil types encountered; discussion of suitable foundation options; recommended allowable soil bearing capacity for a shallow foundation option; lateral earth pressures; discussion regarding the need for dewatering during construction and on a long-term basis; pavement design parameters; and site preparation recommendations related to one- and two-story buildings.

No monies are included in the scope of work in this proposal for permeability rate testing of soils or infiltration area design. Please contact us if you want us to include these services in our scope of work.

We propose to complete this work based on the following unit rates.

**A. GEOTECHNICAL EXPLORATION**

1. Mobilization of drilling personnel, all-wheel drive rubber tire drilling rig, and related equipment to each project site and return. \$350.00 lump sum
2. Project administration and coordination with Diggers Hotline for proper locating and marking of public underground utility lines. The proper locating and marking of private utility lines and structures including septic systems, private water lines, and private electric lines is the responsibility of the site owner. Soils & Engineering Services, Inc., therefore, will not be held liable for damages caused to underground structures due to inadequate or improper marking of said structures. \$65.00 lump sum
3. We assume that MSA Professional Services, Inc. will stake the soil boring locations and determine the ground surface elevation at each soil boring location before we mobilize our drilling crew.
4. We will drill the soil borings with hollow-stem augers and obtain soil samples using a split-barrel sampler (ASTM D 1586) at 2½-foot intervals to a depth of 10 feet and at 5-foot intervals below a depth of 10 feet. Boreholes that encounter auger refusal due to boulders or other subsurface obstructions will be charged at the footage rates provided.
  - a. For that portion of the boring from ground surface to a depth of 20 feet below grade. \$15.00 per linear foot



- b. For that portion of the boring from a depth of 20 feet to 40 feet below grade. \$18.00 per linear foot
  - c. Surcharge for drilling dense soils or bedrock with blow counts of 50 or more per foot. \$10.00 per linear foot
- 5. Boreholes that intersect groundwater or that are more than 10 feet deep will be backfilled with bentonite as required by WDNR. \$5.00 per foot
- 6. We will perform laboratory tests to assist in proper soil classification and to determine appropriate design parameters. We group the samples according to soil type and then select representative samples for testing to determine various soil parameters. We will perform the tests at the following unit rates:
  - a. Moisture content \$10.00 per sample
  - b. Atterberg limits, liquid and plastic \$65.00 per sample
  - c. Washed sieve analyses (No. 200 sieve) \$65.00 per sample
  - d. Washed and dry sieve analyses, with computer plot \$95.00 per sample
  - e. Percent organics by loss on ignition \$60.00 per sample
  - f. Unconfined compressive strength of soil samples \$65.00 per sample
- 7. Laboratory soil classification by a geologist or professional engineer, and preparation of computer-generated Soil Boring Records. \$95.00 per boring
- 8. Geotechnical engineering analyses and preparation of a written report for the proposed structures. \$2,980.00 allowance

The report will include the computer-generated Soil Boring Records; a summary of the soil types and groundwater levels encountered; discussion regarding the need for dewatering during construction and on a long-term basis; site preparation recommendations; discussion regarding suitable foundation types based on the soils encountered; recommended allowable soil bearing capacity; and recommended site preparations for the paved areas and building foundations.

Work requested beyond the scope of the report indicated above will be charged at hourly rates.



9. Questionable soil conditions encountered at the budget depth of borings will require obtaining approval to exceed the budget. We reserve the right to charge \$265.00 per drill rig hour for this delay.
10. This proposal assumes access with rubber tire drilling equipment. No allowances are made for special site preparations to gain access with drill rigs including: furnishing of barges for work over water; tree removal; snow removal; special blocking or cribbing; traversing very soft marsh conditions; or driving or working on steep slopes.  
  
No allowances are included for access permits or other costs associated with gaining access to the subject property and boring locations. Providing and placing matting for the drilling rig will be charged at cost plus 15 percent.
11. The unit charges given in this proposal are valid for a period of ninety (90) days after the date of this proposal. Following that time, we reserve the right to renegotiate the figures if the work has not been authorized within that period of time.

## **B. SUMMARY OF CHARGES**

<u>Item A.1</u>	
Drilling crew mobilization	\$350.00
<u>Item A.2</u>	
Underground utility marking coordination via Diggers Hotline	\$65.00
<u>Item A.4.a</u>	
360 linear feet of drilling and sampling at \$15.00 per linear foot	\$5,400.00
<u>Item A.5</u>	
360 linear feet of borehole backfill at \$5.00 per linear foot	\$1,800.00
<u>Item A.6</u>	
Laboratory testing of soil samples, allowance	\$950.00
<u>Item A.7</u>	
Classification and Soil Boring Records for 18 soil borings at \$95.00 per boring	\$1,710.00
<u>Item A.8</u>	
Geotechnical engineering analyses, project administration and written report	\$2,980.00

The total estimated charge for drilling and sampling eighteen 20-foot soil borings; borehole backfill; laboratory testing; and a geotechnical engineering report for the site is \$13,255.00.



### **C. CLOSING**

SES is not directly involved with the design of the project, but is engaged only to perform field and laboratory work to determine design parameters for the soils. Inasmuch as this exploration is conducted to obtain general knowledge of the subsurface soil conditions by a limited number of borings, MSA Professional Services, Inc. (CLIENT) will limit SES's professional liability to SES's negligent acts, errors, or omissions for conditions relating to the project foundation and its performance as related to recommendations given by SES.

CLIENT understands that SES's services under this proposal are limited to geotechnical engineering and that SES will have no responsibility to locate, identify, evaluate, treat or otherwise consider or deal with hazardous materials. CLIENT will be solely responsible for notifying all appropriate federal, state, municipal, or other governmental agencies, including the potentially effected public, of the existence of any hazardous materials located on or near the project site, or located during the performance of the work presented in this proposal. The discovery of hazardous materials will constitute a changed condition under this proposal.

Hazardous materials are defined in this proposal as any toxic substances, chemicals, pollutants, or other materials, in whatever form or state, that are known or suspected to adversely effect the health and safety of humans or of animal or plant organisms, or which are known or suspected to impair the environment in any way whatsoever.

SES offers different levels of geotechnical engineering services to suit the desires and needs of different clients. Although the possibility of error can never be eliminated, more detailed and extensive services yield more information and reduce the probability of error, at increased cost. CLIENT must determine the level of service adequate for its purposes. CLIENT warrants that it has reviewed the scope of work presented in this proposal and has determined that it does not need or want a greater level of service than that proposed. Subject to the limitations inherent in the agreed upon scope of work as to the degree of care, amount of time and expenses incurred, and subject to any other limitations contained in this proposal, SES will perform its services consistent with that level of care and skill ordinarily exercised by other professional engineers under similar circumstances at the time the services are performed. No warranty, expressed or implied, is included or intended by this proposal.

We have insurance coverage for professional liability, general liability, automobile liability, bodily injury, property damage, and completed operation, to protect the subject property and our workers during the performance of the field work. We require written authorization to proceed with the work for this project for our insurance coverage to be in effect. The professional liability of SES is limited to the policy limits per the attached Certificate of Insurance.

Please indicate your authorization for us to proceed on this project by returning to us a signed copy of this proposal. If you have any questions regarding this submittal or if you need additional information, please contact us at (608) 274-7600.



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Respectfully submitted,

**SOILS & ENGINEERING SERVICES, INC.**



Duane E. Reichel, P.E.

DER:JAJ:wsr

**APPROVAL OF PROPOSAL**

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

